BookletChartTM

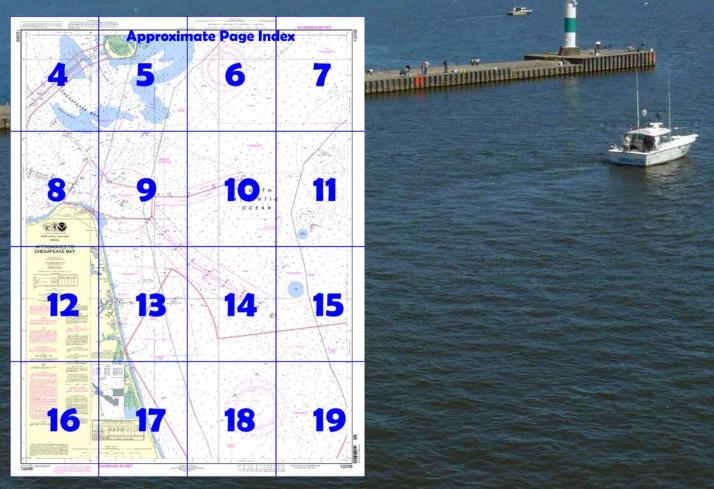




A reduced-scale NOAA nautical chart for small boaters When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the National Oceanic and Atmospheric Administration National Ocean Service Office of Coast Survey

<u>www.NauticalCharts.NOAA.gov</u> 888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart[™]?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 https://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 https://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 https://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 https://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 https://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=122 <a href="https://www.nauticalcharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchbycharts.noaa.gov/nsd/searchby



(Selected Excerpts from Coast Pilot)

Endangered northern right whales may occur in approach channels to the Chesapeake Bay. They are most likely to occur in the area from November through April.

Chesapeake Light (36°54'17"N., 75°42'46"W.), 117 feet above the water, is shown from a blue tower on a white superstructure on four piles, 14 miles eastward of Cape Henry. The name CHESAPEAKE is displayed on all sides. A fog signal and racon are at the light. A fish

haven, consisting of sunken fishing-boat hulls and marked by private unlighted buoys, is about 0.4 mile southwestward of the light.

Nautilus Shoal, which extends 4 miles southeastward from Fishermans Island, has patches with depths of 6 to 11 feet. The buoyed channel along the southwest side of Nautilus Shoal, thence northward between Fishermans Island and Inner Middle Ground, had a controlling depth of about 16 feet in 1977-1980. The channel is used by local vessels drawing up to 12 feet. This channel is not recommended for strangers because of shifting shoals. In 1996, a 10-foot shoal was reported 1.5 miles S of Fishermans Island in about 37°03'31.2"N., 075°57'27.0"W. Breakers frequently occur along the axis of Inner Middle Ground, starting on the seaward side of the Chesapeake Bay Bridge-Tunnel and continuing the entire length of the shoal. This phenomenon appears to be associated with large swells rolling in from sea from the south-southeast to southeast.

Cape Henry Light (36°55'35"N., 76°00'26"W.) is shown from an octagonal, pyramidal tower, upper and lower half of each face alternately black and white, on the beach near the turn of the cape. The gray octagonal, pyramidal tower 110 yards southwest of Cape Henry Light is the abandoned 1791 lighthouse.

Local magnetic disturbance.—Differences of as much as 6° from the normal variation have been observed 3 to 17 miles offshore from Cape Henry to Currituck Beach Light.

A **naval restricted area** extends northward and eastward from Cape Henry.

The Chesapeake Bay Bridge-Tunnel extends from Cape Charles across the bay entrance to a point 6 miles westward of Cape Henry. The 15-mile crossing has vehicular tunnels under Chesapeake Channel and Thimble Shoal Channel with fixed bridges over Fishermans Inlet and secondary channels. In addition to the channel buoys and lights, daybeacons and fog signals mark the openings at Chesapeake and Thimble Shoal Channels. At night the floodlighted tunnel houses are more prominent than the privately maintained lights marking the channels. In July 1996, a two-lane low level and high level fixed span bridge was under construction about 267 yards westward of the existing fixed highway bridge across Chesapeake Bay; upon completion, the clearances will be the same as the existing bridge.

A **naval restricted area** extends northward, eastward, and southeastward from Cape Henry. (See **334.320**, chapter 2, for limits and regulations.)

A **naval prohibited area** is off Camp Pendleton, 7.4 miles southward of Cape Henry. (See **334.400**, chapter 2, for limits and regulations.) **Danger zones of naval firing ranges** are about 8 and 9 miles southward of Cape Henry. (See **334.380 and 334.390**, chapter 2, for limits and regulations.)

Two radar towers and a blue water tank, 158 feet above the water, are prominent at the Dam Neck Naval Station about 9 miles southward of Cape Henry Light.

Part of Back Bay National Wildlife Refuge extends from 15 to 18.5 miles south of Cape Henry Light along The Outer Banks.

False Cape, so called because of its resemblance to Cape Henry when approaching from southward, is about 22 miles southward of Cape Henry Light. Several spots with depths of 10 to 17 feet are 0.8 to 1.5 miles offshore from False Cape.

Sand dunes in this area have a tendency to alternately erode and then build up again as the seasons change, generally working to the southward; they should not be depended upon as navigational marks.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Norfolk Commander

5th CG District (575) 398-6231 Norfolk, VA

Corrected through NM Nov. 19/11 Corrected through LNM Nov. 15/11

PRECAUTIONARY AREA

Vessels should use caution while ansiting this area due to naval operations 48

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection Scale 1:50,000 at Lat. 36° 54'

North American Datum of 1983 (World Geodetic System 1984)

SOUNDINGS IN FEET AT MEAN LOWER LOW WATER

NOTE S

Regulations for Ocean Dumping Sites are contained in 40 CER Parts 220-229 Additional contained in 40 CPA, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

For Symbols and Abbreviations see Chart No. 1

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at

Norfolk, VA KHB-37 162.550 MHz

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.535 northward and 1.249 eastward to agree with this chart.

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

POLLUTION REPORTS

Report all spills of oil and hazardous sub-stances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 6° from the normal variation have been observed 3 to 17 nautical miles offshore from Cape Henry to Currituck Beach

BADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

Table of Selected Chart Notes

FISH TRAP AREAS AND STRUCTURES

Mariners are warned that numerous uncharted duck blinds and fishing structures, some sub-merged, may exist in the fish trap areas. Such structures are not charled unless known to be permanent.

Regulations to assure clear passage to and through dredged and natural channels and to established landings are prescribed by the Corps of Engineers in the Code of Federal Regulations.

Definite limits of fish trap areas have been established in some areas and those limits are

shown thus: — — — — — — Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and National Geospatial-Intelligence Agency.

Navigation regulations are published in Chapter 2, U.S. Coast Pilots 3 and 4. Additions or revisions to Chapter 2 are published in the Notice to Mainners. Information concerning the regulations may be obtained at the Office of the Commander, 6th Coast Guard District in Portsmouth, Virginia or at the ice of the District Engineer, Corps of Engineers in

Refer to charted regulation section numbers.

NOTE H

While dredging operations attempt to maintain Rudee Inlet channel to a depth of 10 feet, the inlet is subject to continual shoaling.

NOTE F

CAUTION

Numerous diffusers, rising 4^1_2 feet above existing bottom are found along the last 2,400 feet of the sewer.

NOTE E

CHESAPEAKE BAY BRIDGE - TUNNEL

(Private lights)

North Channel Bridge - A fixed green light marks the midchannel with fixed red lights marking the channel limits. Fixed red obstruction lights mark each pier in Trestles C and D.

SOURCE DIAGRAM

SOURCE DIAGRAM TOWERS ()
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, <u>United States Coast Pilot.</u>

COLREGS: International Regulations for Preventing Collisions at Sea, 1972.

Demarcation lines are shown thus: ————

TIDAL INFORMATION								
PLACE	Height referred to datum of soundings (MLLW)							
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water				
Fishermans Island Cape Henry Lynnhaven Inlet, Virginia Pilots Dock Virginia Beach	(37°06'N/75°59'W) (36°56'N/76°00'W) (36°54'N/76°05'W) (36°51'N/75°58'W)	3.5 2.6	feet 3.2 3.2 2.4 3.6	feet 0.1 0.1 0.1 0.1 0.2				

Dashes (---) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov. Oct 2011)

THIMBLE SHOAL AND CHESAPEAKE BAY ENTRANCE CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO OCT 2011

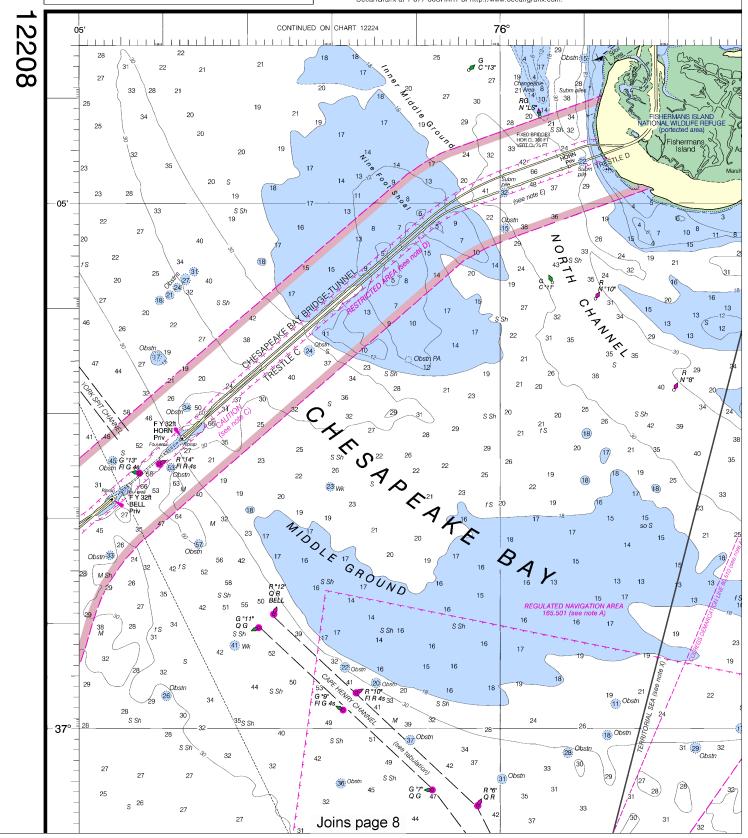
THE CONTROL OF THE CONTROL CON									
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)							PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)	
THIMBLE SHOAL CHANNEL (A) NORTH AUXILIARY CHANNEL (B) SOUTH AUXILIARY CHANNEL (B) CAPE HENRY CHANNEL	48.3 45.6	50.3	50.0 47.9	47.1 43.5	7-11	1000 450 450 1000	13.0	55 32 32 50	

A. CHANNEL IS RESTRICTED TO EXCLUDE VESSELS AND TOWS DRAWING LESS THAN 25 FEET. CHANNEL MAINTAINED TO 50 FEET. B. PROJECT MAINTENANCE DISCONTINUED NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

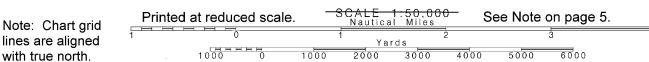
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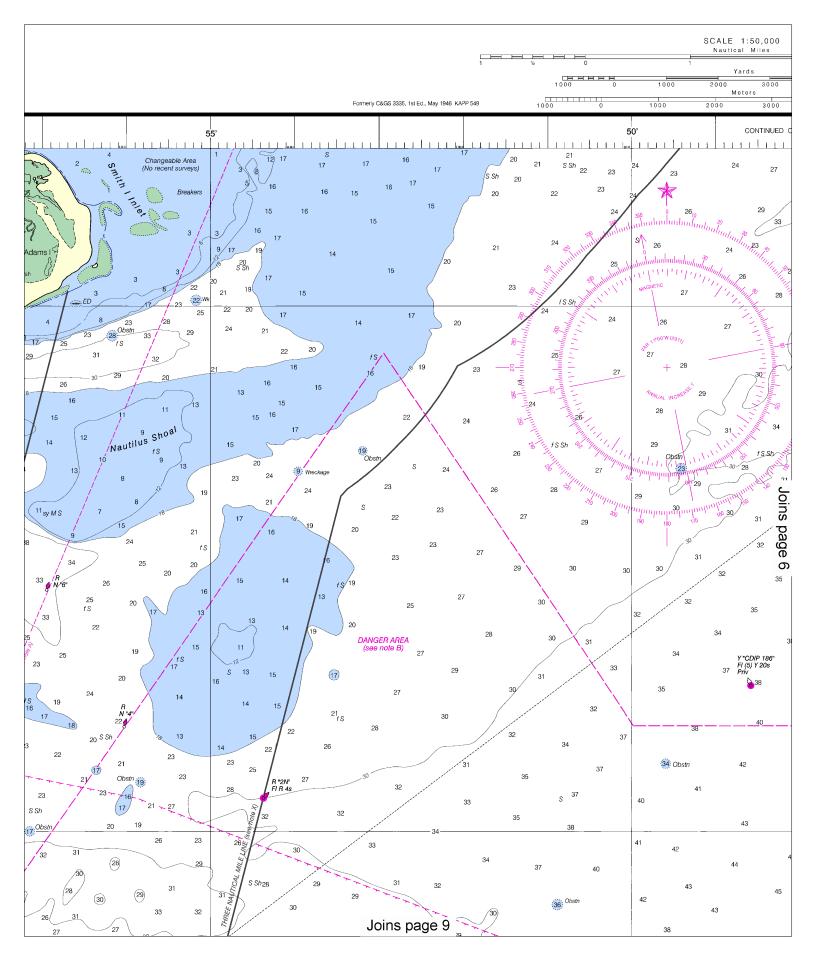
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

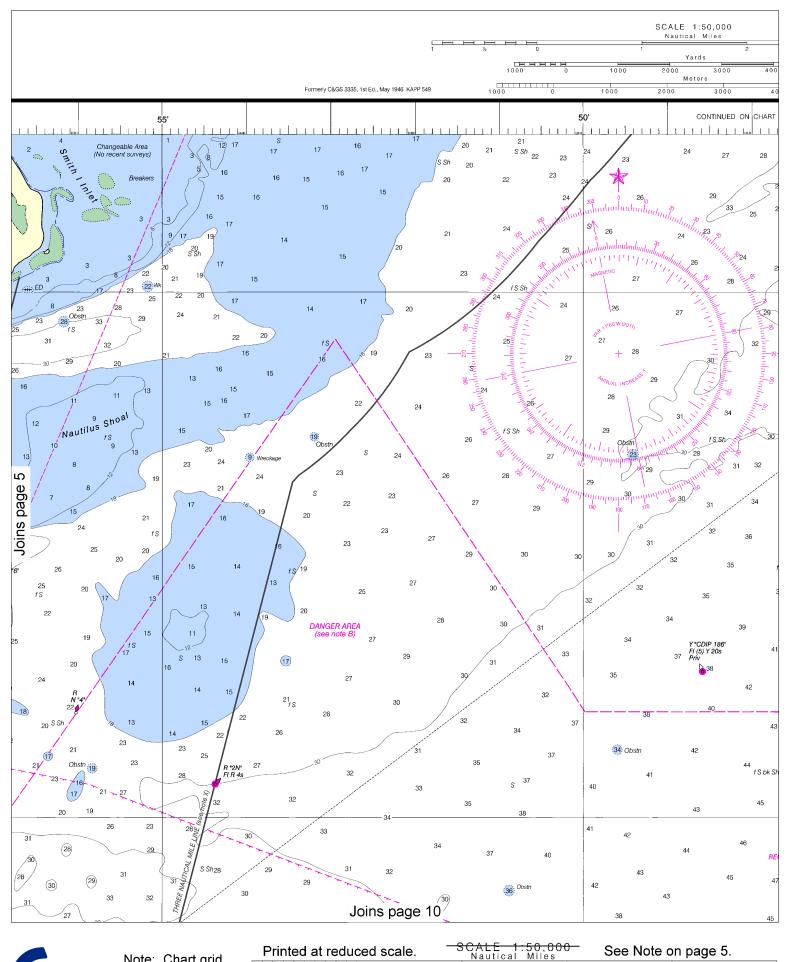
NOAA and its partner, OceanGraffix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at http://costata.ncd.noaa.gov/idrs/inquiry.aspx, or OceanGrafix at 1-877-56CHART or http://www.oceangrafix.com.



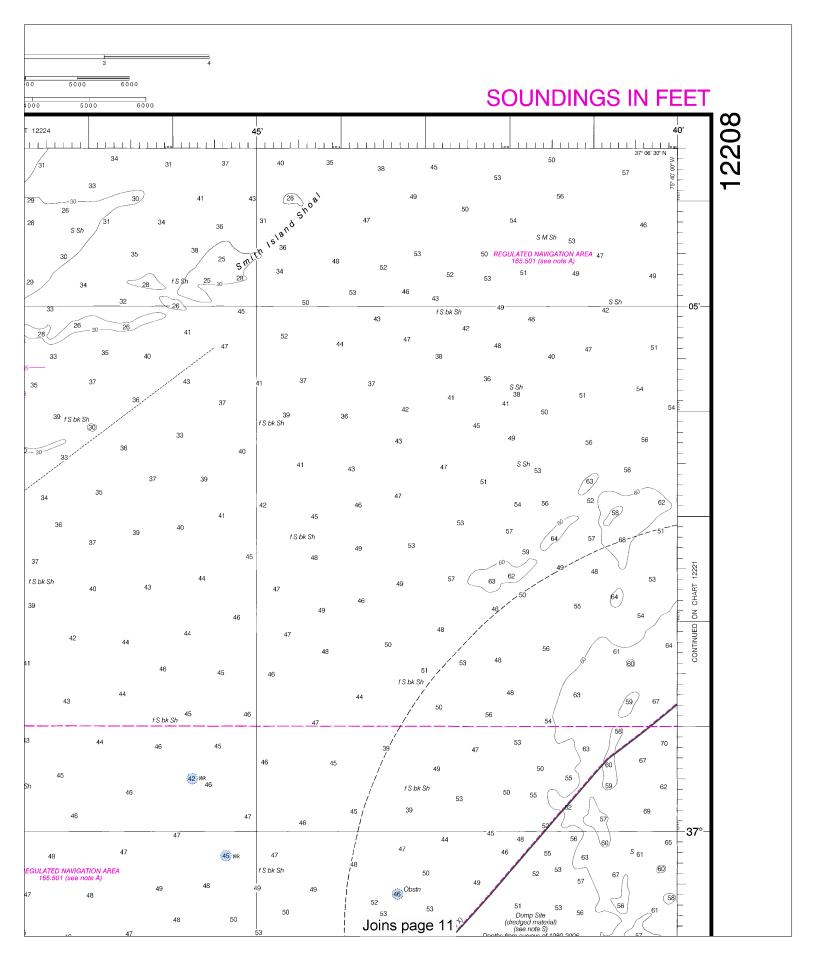
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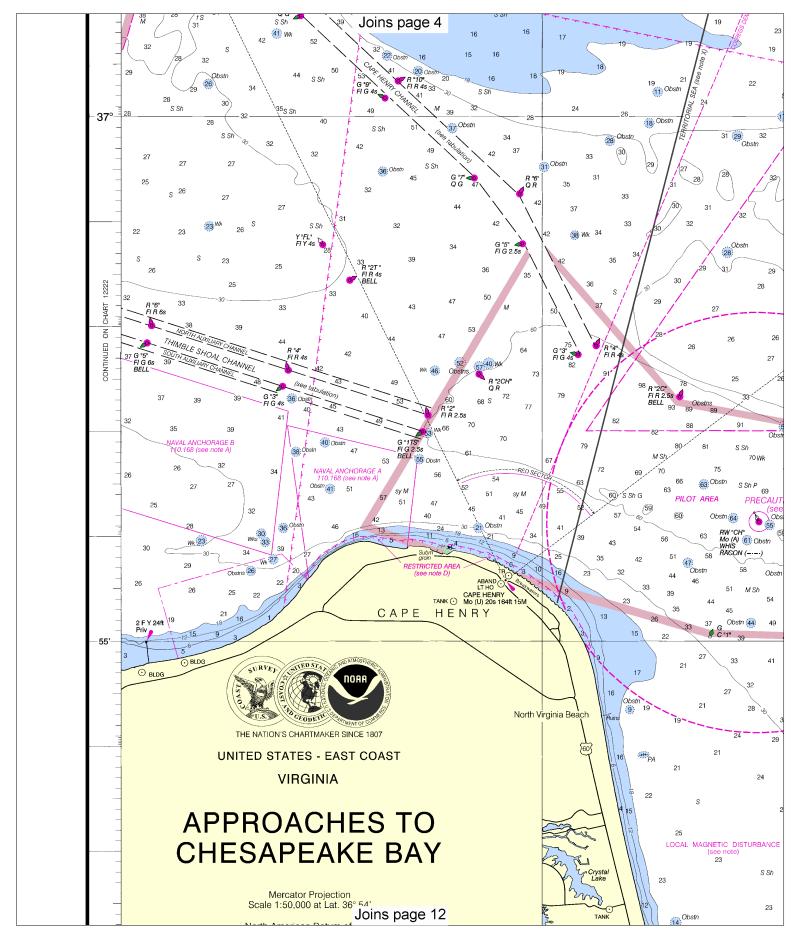






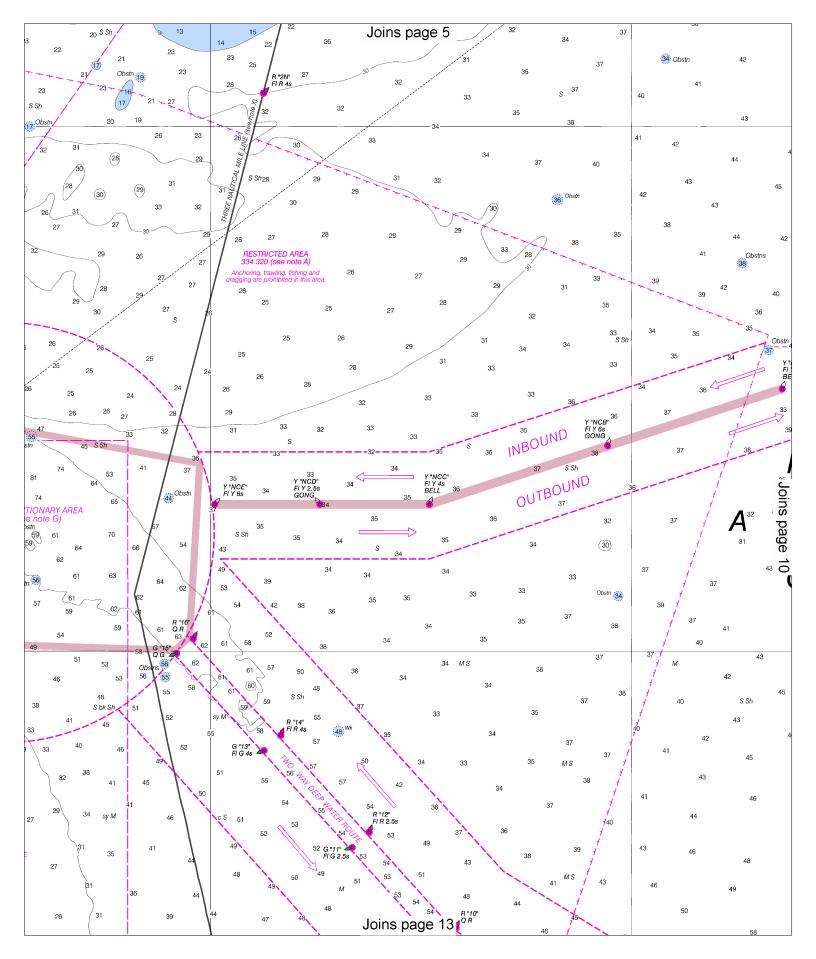


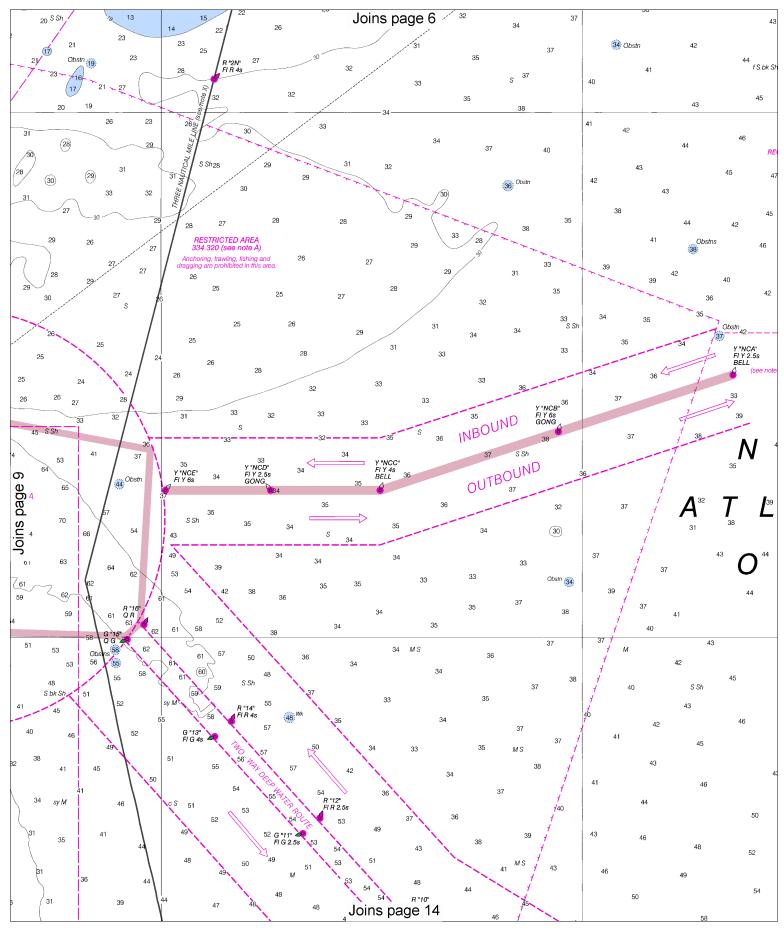




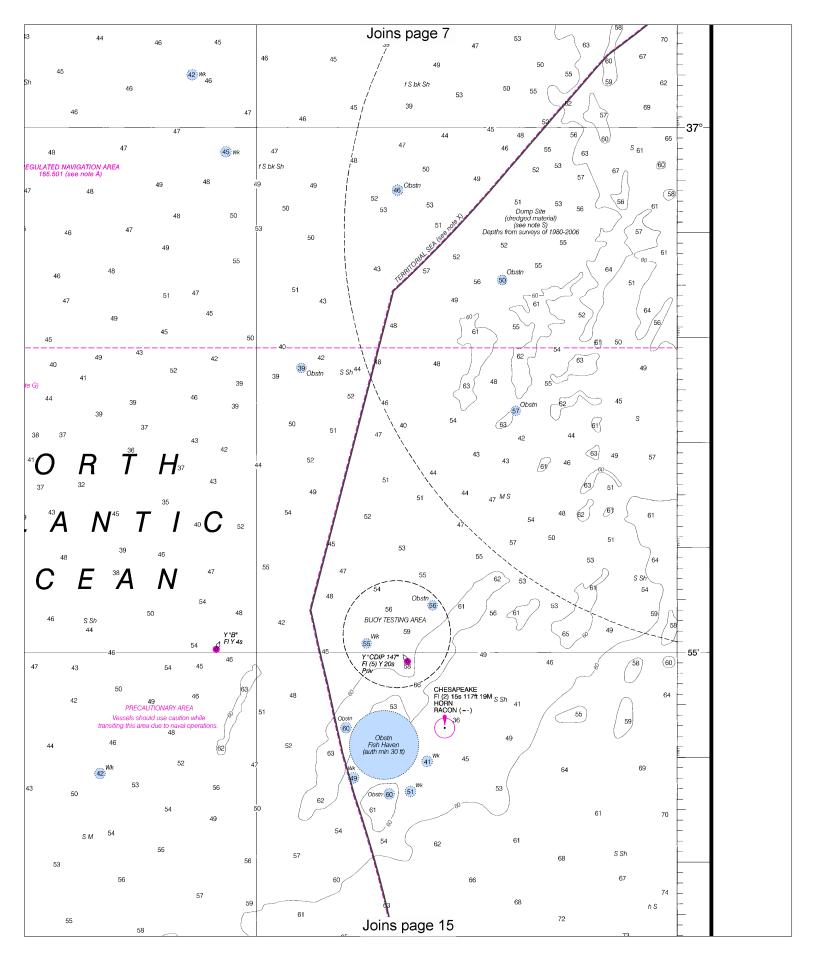




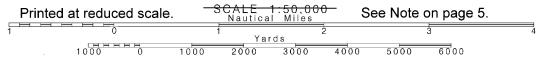


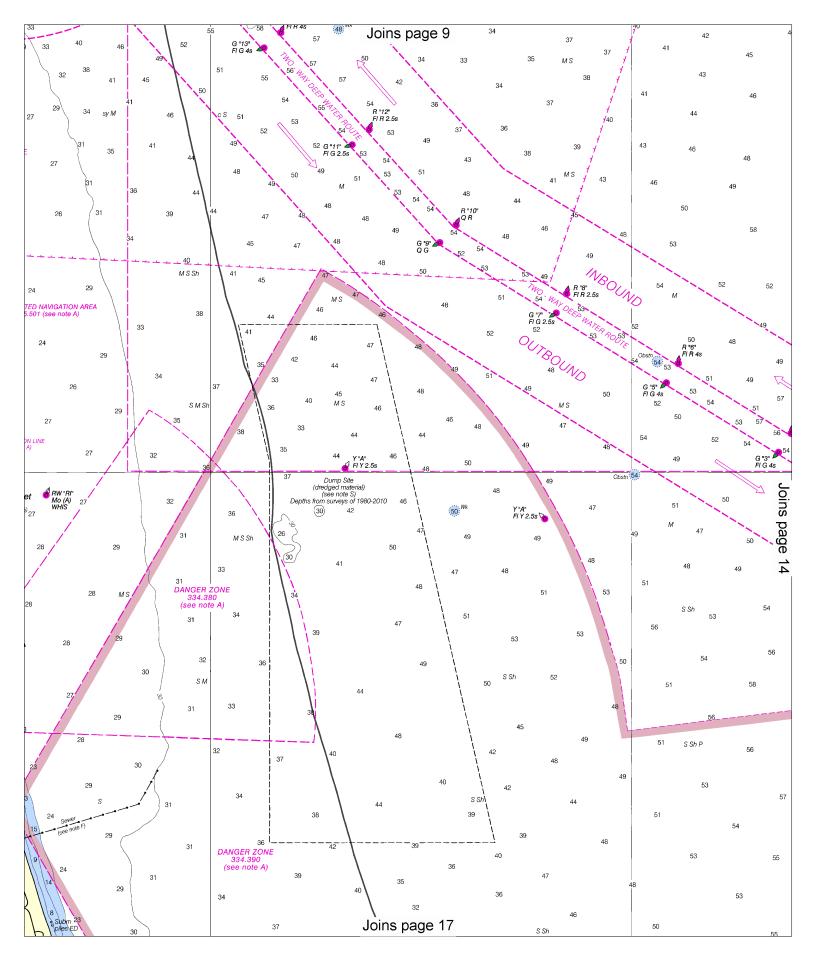


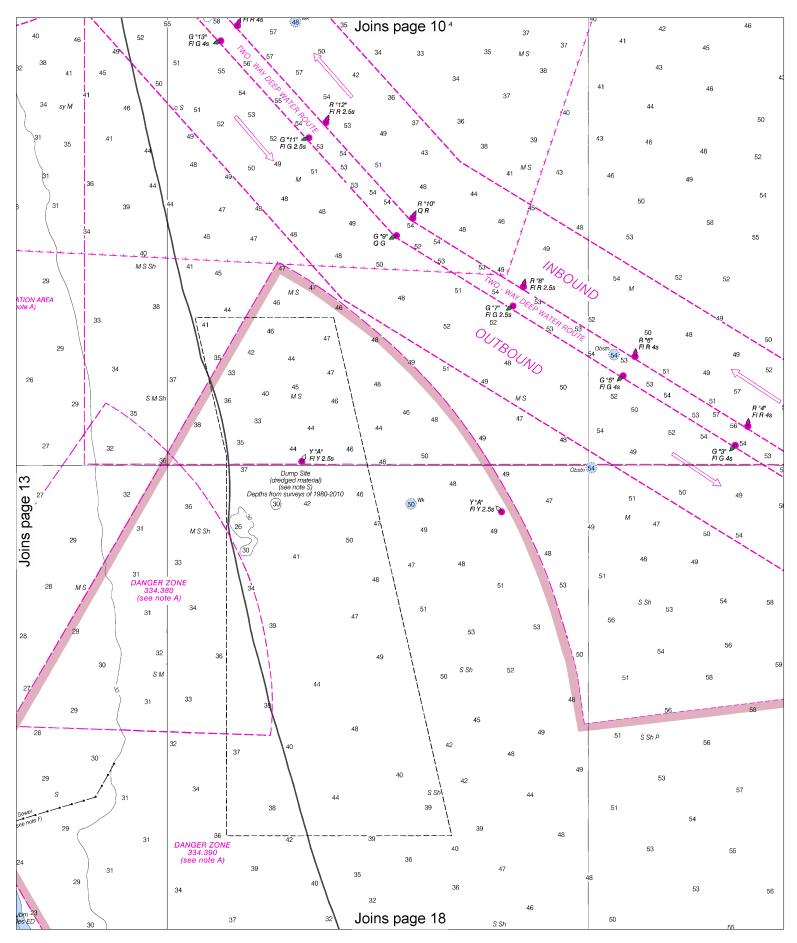


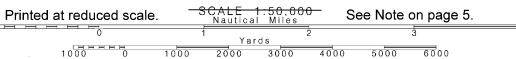


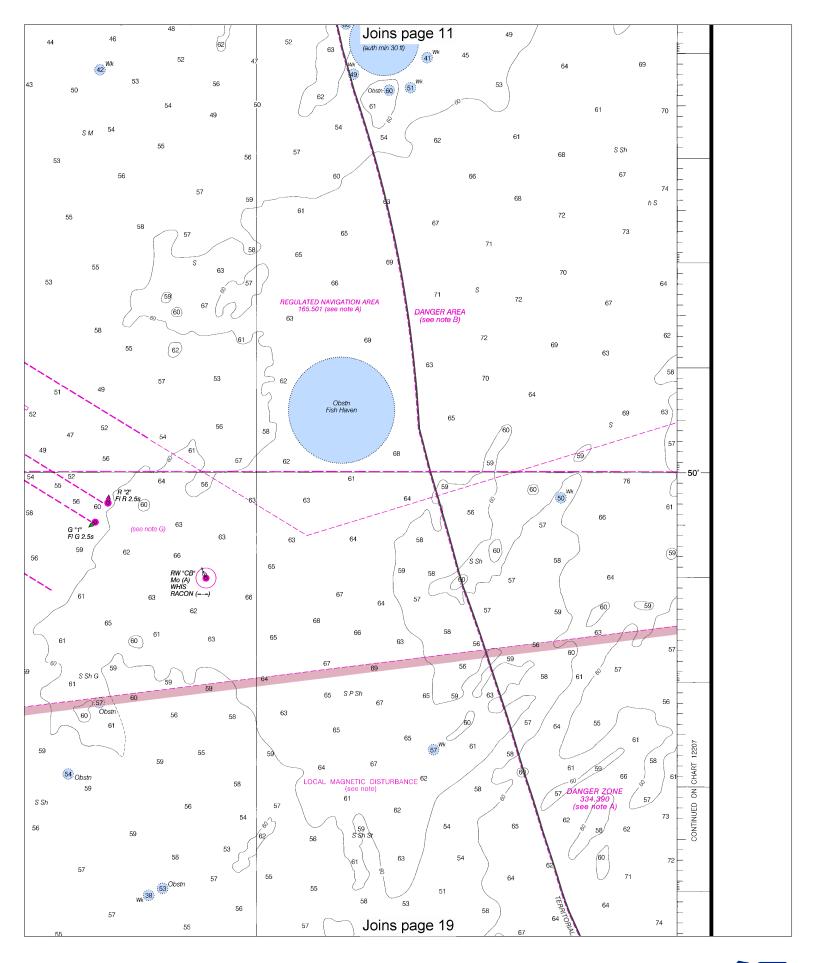
Joins page 8 THE NATION'S CHARTMAKER SIN 21 UNITED STATES - EAST COAST 21 **VIRGINIA** APPROACHES TO CHESAPEAKE BAY LOCAL MAGNETIC DISTURBANCE 23 S Sh 23 Mercator Projection Scale 1:50,000 at Lat. 36° 54' Obstn North American Datum of 1983 (World Geodetic System 1984) SOUNDINGS IN FEET AT MEAN LOWER LOW WATER Additional information can be obtained at nauticalcharts.noaa.gov REGULAT 165. TIDAL INFORMATION Height referred to datum of soundings (MLLW) Mean High Water feet 3.2 3.2 2.4 3.6 Low Water feet 3.4 3.5 2.6 3.9 VIRGINIA BEACH Fishermans Island Cape Henry Lynnhaven Inlet, Virginia Pilots Dock Virginia Beach (37°06'N/75°59'W (36°56'N/76°00'W (36°54'N/76°05'W (36°51'N/75°58'W 25 Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels 21 Obstn tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov. HEIGHTS Heights in feet above Mean High Water. S Sh SUPPLEMENTAL INFORMATION Consult U.S. Coast Pilots 3 and 4 for important supplemental information. For Symbols and Abbreviations see Chart No. 1 50' R "2" FIR 2.5s COLREGS: International Regulations for Preventing Collisions at Sea, 1972. Demarcation lines are shown thus: Rudee Inle NOTE A **AUTHORITIES** Navigation regulations are published in Chapter 2, U.S Hydrography and topography by the National Coast Pilots 3 and 4. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard, and National Geospatial-S M Sh 26 Intelligence Agency. Office of the District Engineer, Corps of Engineers in HORIZONTAL DATUM olk, Virginia. Refer to charted regulation section numbers. The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). NOTE B DANGER AREA Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.535" northward and 1.249" eastward to agree with this chart. Area is open to unrestricted surface navigation but all vessels are cautioned neither to anchor, dredge, trawl, lay cables, bottom, nor conduct any other similar type of operation WARNING The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details. NOTE C CAUTION CAUTION The Chesapeake Bay Bridge-Tunnel Complex has on several occasions suffered damage from vessels due to adverse weather conditions. Currents in excess of three knots can be expected in the area. Mariners transiting this area are urged to be particularly alert in regards to the weather situation. The National Weather Service provides 24 hour weather broadcasting on 162.55 MHz. The Local Marine Operator also transmits weather information at 0100, 0700, 1300 and 1900 local time on 2538 and 2450 kHz. Transmitting schedules are subject to change, see Notice to Mariners. Maneuvering in close proximity of the bridge-tunnel complex is discourance. 23 NOTE S Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). Redwing Lake 23 See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown. proximity of the bridge-tunnel complex is discouraged. EMERGENCY RESTRICTED AREA AIDS TO NAVIGATION For the latest information regarding the regulations of any emergency restricted area, contact the Army Corps of Engineers, Norfolk District, Regulatory Branch at (757) 201-7653/7652. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation. SOURCE DIAGRAM TOWE The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained NOTE E Temporary changes or defects in aids to navigation are not indicated on this chart. See CHESAPEAKE BAY BRIDGE - TUNNEL by the U.S. Army Corps of Engineers are periodically resurveyed and are (Private lights) not shown on this diagram. Refer to Chapter 1 Local Notice to Mariners. North Channel Bridge - A fixed green light marks the mid-channel with fixed red lights marking the channel limits. Fixed red obstruction lights mark each pier in Trestles C and D. CAUTION Improved channels shown by broken lines are subject to shoaling, particularly at the edges. NOTE F CAUTION RADAR REFLECTORS Numerous diffusers, rising $4\frac{1}{2}$ feet above existing bottom, are found along the last 2,400 feet of the sewer. SOURCE Joins page 16 ve been placed on many 1990-2010 NOS Surveys full bottom coverage

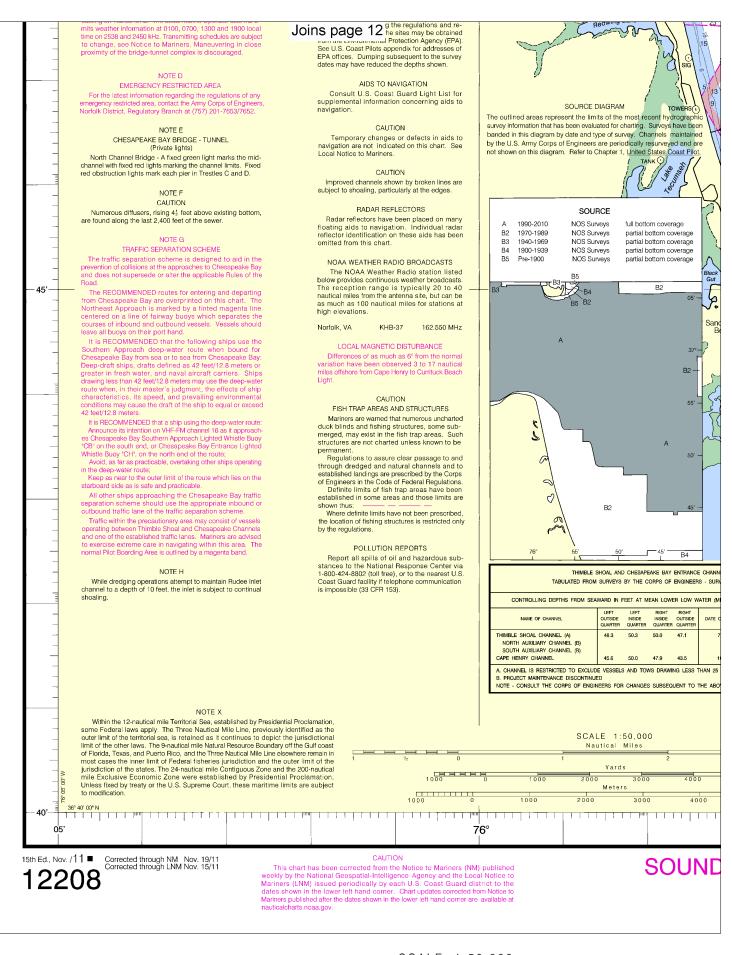


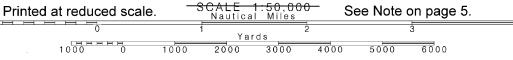


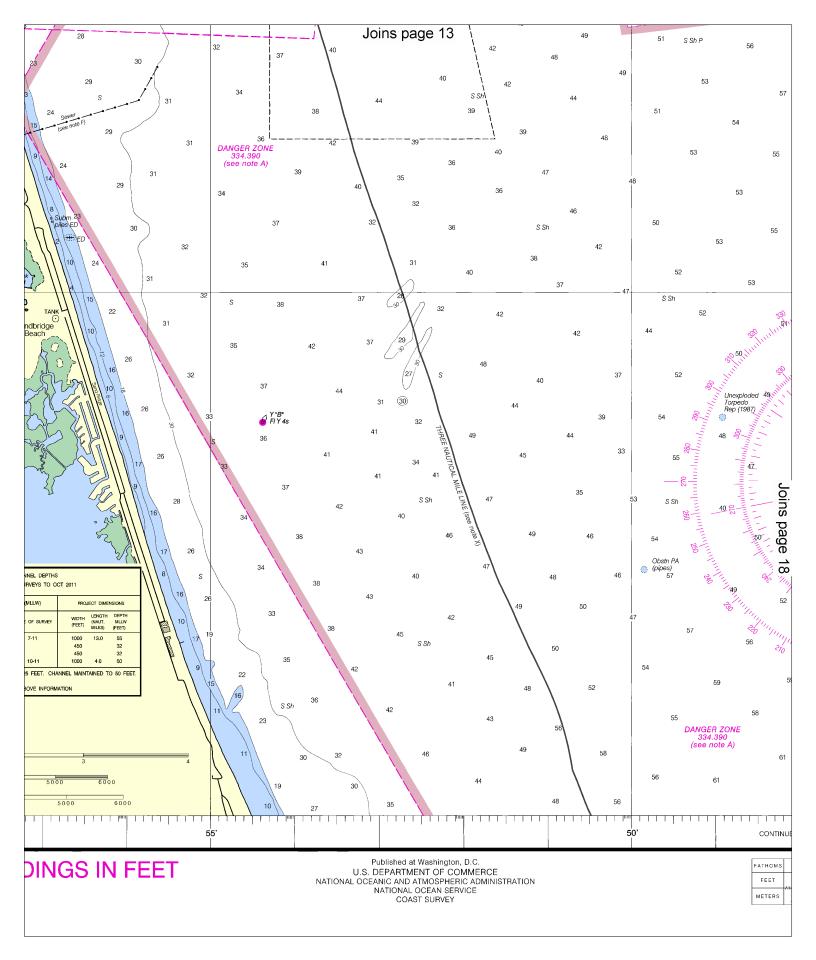


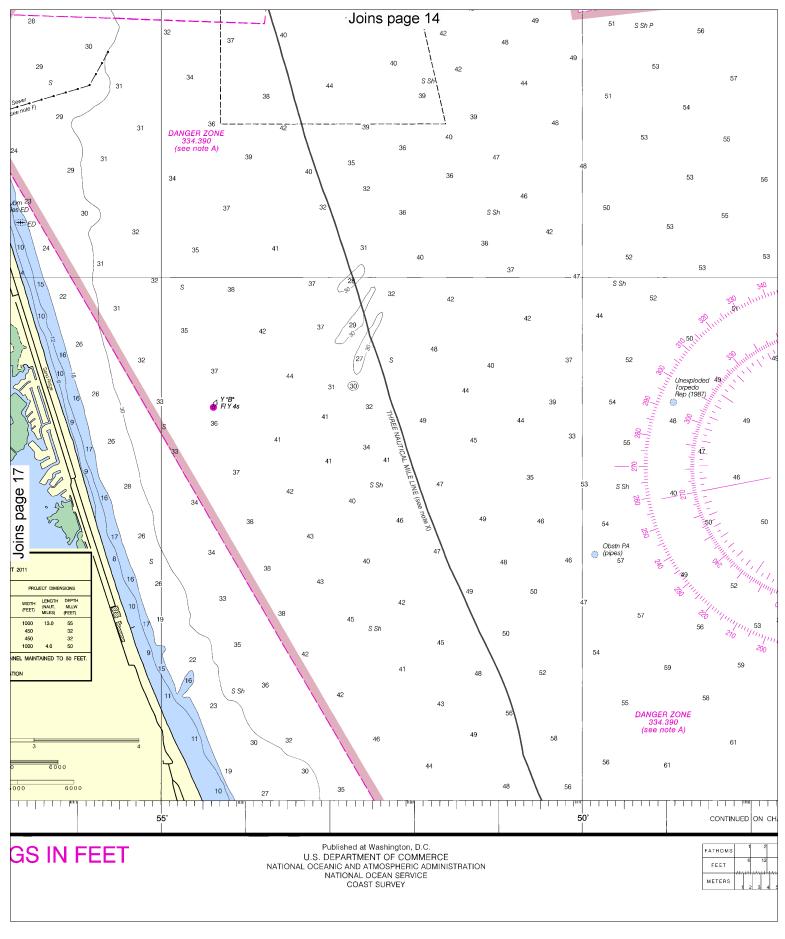




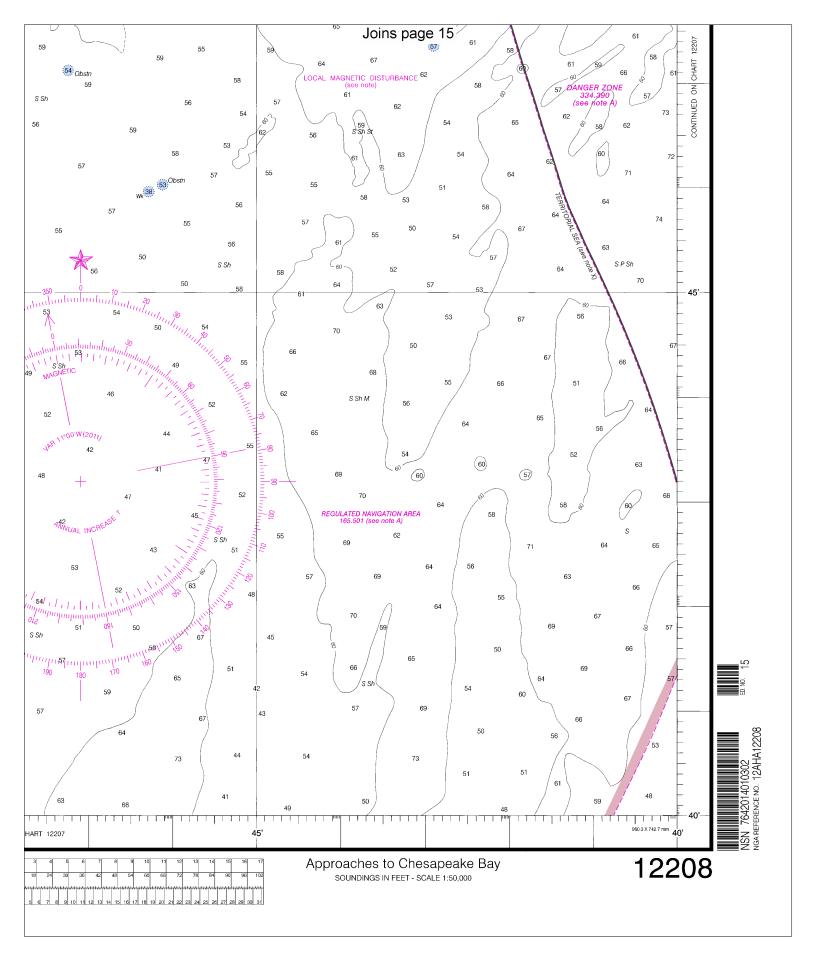








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VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here. Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of

Emergency; Number of People on Board.

- · Release transmit button.
- Wait for 10 seconds If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information — http://www.nauticalcharts.noaa.gov

Online chart viewer — http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html

Report a chart discrepancy — http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx

Chart and chart related inquiries and comments — http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs

Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html

Coast Pilot online — http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm

Tides and Currents — http://tidesandcurrents.noaa.gov

Marine Forecasts — http://www.nws.noaa.gov/om/marine/home.htm

National Data Buoy Center — http://www.ndbc.noaa.gov/

NowCoast web portal for coastal conditions — http://www.nowcoast.noaa.gov/

National Weather Service — http://www.weather.gov/

National Hurrican Center — http://www.nhc.noaa.gov/

Pacific Tsunami Warning Center — http://ptwc.weather.gov/

Contact Us — http://www.nauticalcharts.noaa.gov/staff/contact.htm



For the latest news from Coast Survey, follow @nauticalcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

